

**EVALUATION REPORT OF
UNION CORRUGATING COMPANY
'ML200 PANEL'**

**FLORIDA BUILDING CODE 7TH EDITION (2020)
FLORIDA PRODUCT APPROVAL
FL 9555.7-R5
STRUCTURAL COMPONENTS
ROOF DECK**

**Prepared For:
Union Corrugating Company
701 S. King St.
Fayetteville, NC 28301
Telephone: (910) 483-0479
Fax: (910) 483-1091**

**Prepared By:
Bala Sockalingam, Ph.D., P.E.
Florida Professional Engineer #62240
1216 N Lansing Ave., Suite C
Tulsa, OK 74106
Telephone: (918) 492-5992
FAX: (866) 366-1543**

**This report consists of
Evaluation Report (3 Pages including cover)
Installation Details (1 Page)
Load Span Table (1 Page)**

**Report No. C2373-7
Date: 8.8.2020**

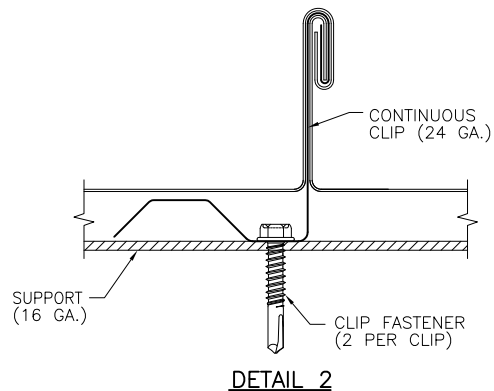
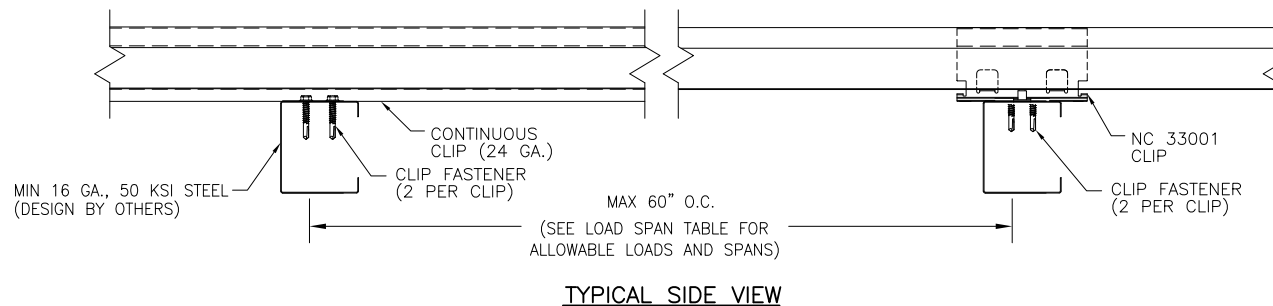
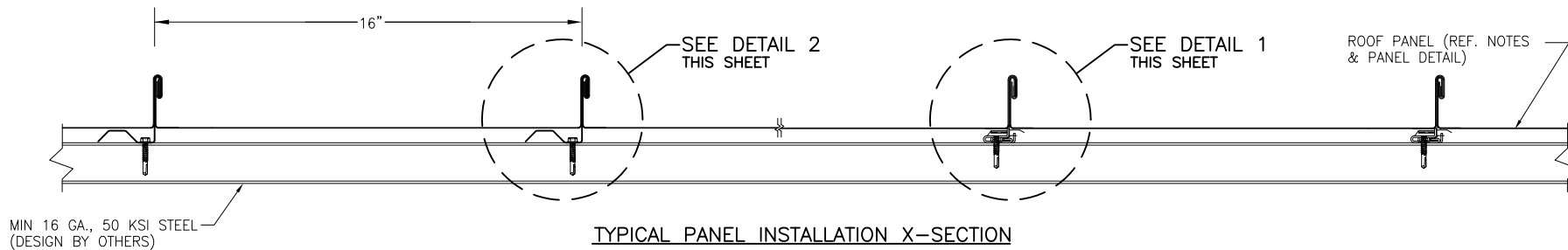


Manufacturer:	Union Corrugating Company
Product Name:	ML200
Panel Description:	Standing seam panel with 16" wide coverage and 2" high ribs
Materials:	Min 24 ga. with galvalume coated steel (ASTM A792) or painted steel (ASTM A755) ($F_y = 50$ ksi). Corrosion resistant as per FBC 2020 Section 1507.4.3.
Support Description:	Min 16 ga., 50 ksi steel section (Must be designed by others)
Slope:	1/4:12 or greater in accordance with FBC 2020 Section 1507.4.2
Design Uplift Pressure: NC 33001 sliding clips	Panel Seam: 180°, Factor of Safety: 2 42.0 psf at support spacing of 60" o.c. 80.0 psf at support spacing of 30" o.c. 120.0 psf at support spacing of 20" o.c.
24 ga. continuous clips	56.3 psf at support spacing of 60" o.c.
Panel Attachment:	NC 33001 sliding clips with minimum (2) #12-14 x 1-1/4" SDS per clip at each support or 24 ga. continuous clips with minimum (2) #12-14 x 1-1/4" SDS at each support. Clips and fasteners are corrosion resistant as per FBC 2020 Section 1506.7 and 1507.4.4, respectively.
Test Standards:	Roof assembly tested in accordance with ASTM E1592-05(2012) 'Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference' and FM 4470 Section 5.5 'Resistance to Foot Traffic'.
Test Equivalency:	The test procedure in FM 4470 (1992) comply with test procedure prescribed in FM 4470 (2016) Section 4.6 'Resistance to Foot Traffic'.
Code Compliance:	The product described herein has demonstrated compliance with FBC 2020 Section 1507.4.
Product Limitations:	Design wind loads shall be determined for each project in accordance with FBC 2020 Section 1609 or ASCE 7-16 using allowable stress design. The maximum support spacing listed herein shall not be exceeded. The design uplift pressure for reduced support spacing may be computed using rational analysis prepared by a Florida Professional Engineer or based on Union Corrugating load span table. This evaluation report is not applicable in High Velocity Hurricane Zone. Fire classification is not within scope of this Evaluation Report. Refer

to FBC 2020 Section 1505 and current approved roofing materials directory or ASTM E108/UL790 report from an accredited laboratory for fire ratings of this product.

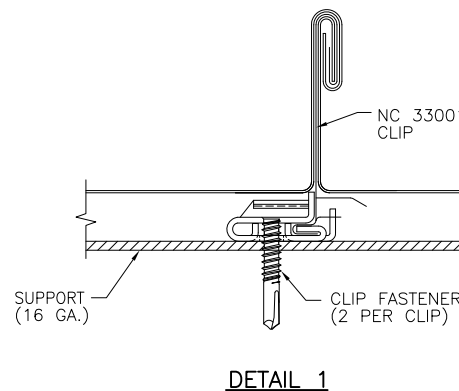
Supporting Documents: ASTM E1592 Test Reports
ENCON Technology Inc.
Project No. C2108-1, Reporting Date 9/26/16
Project No. C2108-2, Reporting Date 9/26/16

FM 4470 Test Report
ENCON Technology Inc.
C2321-1, Reporting Date 2/7/20

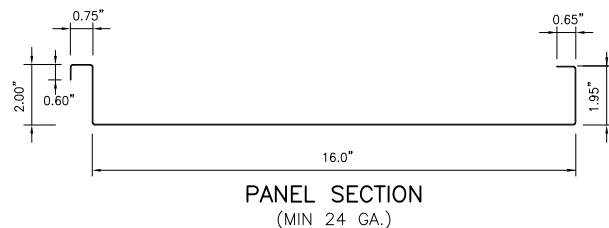


DETAIL 2

CLIP SECTION VIEW



DETAIL 1



GENERAL NOTES:

1. STRUCTURAL ROOF PANEL HAS BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC).
2. ROOF PANELS SHALL BE 24 GA. ($t = 0.022$ "). EFFECTIVE COVERING WIDTH OF PANEL = 16".
3. ROOF PANELS SHALL BE INSTALLED OVER STRUCTURE AS SPECIFIED ON THIS DRAWING.
4. REQUIRED DESIGN WIND LOADS SHALL BE DETERMINED FOR EACH PROJECT. THIS PANEL SYSTEM MAY NOT BE INSTALLED WHEN THE REQUIRED DESIGN WIND LOADS ARE GREATER THAN THE ALLOWABLE DESIGN LOADS.
5. CLIPS AND FASTENERS MUST BE IN ACCORDANCE WITH THIS DRAWING & FLORIDA BUILDING CODE. IF A DIFFERENCE OCCURS BETWEEN THE MINIMUM REQUIREMENTS OF THIS DRAWING & THE CODE, THE CODE SHALL CONTROL.
6. SUPPORTS MUST BE DESIGNED TO WITHSTAND WIND LOADS AS REQUIRED FOR EACH APPLICATION AND ARE THE RESPONSIBILITY OF OTHERS.

DRAWN BY: B.S.	CHECKED BY: R.B.
PLOT:	DATE: 2/6/2020
DATE	
BY	
REVISION DESCRIPTION	
NO.	
DRAWING TITLE ML200 STANDING SEAM ROOF PANEL	
CONSULTANTS BALA SOCKALINGAM, PH.D., P.E.	MANUFACTURER UNION CORRUGATING COMPANY
1216 N LANSING AVE, SUITE C TULSA, OK 74106 PHONE: 918-492-5992 FAX: 866-366-1543	701 S. King St. Fayetteville, NC 28301 910-483-0479
DRAWING NO. 2373-7	REV.
PAGE NO. 1	OF 1

UNION CORRUGATING COMPANY

ML200 Panel

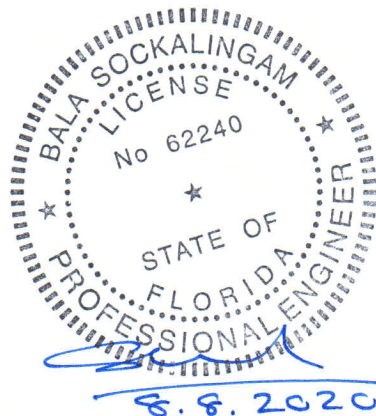
Allowable Uplift Loads

Description	Fastener Spacing along panel length (in)	Allowable Uplift Load (psf)
ML200 Panel Min. 24 ga.	20	120.0
	22	109.1
NC 33001 with (2) #12-14 SDS	24	100.0
	26	92.3
	28	85.7
	30	80.0
	32	77.5
	34	74.1
	36	70.0
	38	66.3
	40	63.0
	42	60.0
Support Min 16 ga.	44	57.3
	46	54.8
	48	52.5
	50	50.4
	52	48.5
	54	46.7
	56	45.0
	58	43.4
	60	42.0

Notes:

1. The bold numbers indicate design loads calculated from test data with safety factor of 2.
2. Panels must be installed as per Evaluation Report FL 9555.7 and Union's current installation procedure.

1216 N Lansing Ave., Suite C
Tulsa, Ok 74106
918 492 5992



Bala Sockalingam, Ph.D., P.E.
PE 62240